Claims

1. Method to retrieve RDS information by filtering and transforming an incoming multiplex signal (m(t)) into an amplitude demodulated RDS signal ($m_{rds}(t)$), **characterized in that** an amplitude modulated RDS signal ($m_c(t)$) is derived on basis of an intermediate signal ($m_a(t)$) obtained during an extraction of a stereo-difference signal ($m_d(t)$) from the incoming multiplex signal (m(t)).

2. Method according to claim 1, **characterized in that** the intermediate signal ($m_a(t)$) is obtained by multiplying the multiplex signal (m(t)) with the second harmonic of a pilot carrier ($2\sin(2\omega_{pil}t)$).

3. Method according to claim 1 ~~or 2,~~ **characterized in that** the amplitude modulated RDS signal ($m_c(t)$) is derived by subtracting a stereo-sum signal ($m_s(t)$) multiplied by the second harmonic of a pilot carrier ($2\sin(2\omega_{pil}t)$) from the intermediate signal ($m_a(t)$).

4. Method according to claim 1 ~~or 2,~~ **characterized in that** the amplitude modulated RDS signal ($m_c(t)$) is set to be the intermediate signal ($m_a(t)$).

5. Method according to ~~anyone of claims 1 to 4,~~ claim 1 **characterized by**:
- amplitude demodulation of the amplitude modulated RDS signal ($m_c(t)$); and
- decoding the amplitude demodulated RDS signal ($m_{rds}(t)$).

6. Method according to claim 5, **characterized in that** the amplitude demodulation of the amplitude modulated RDS signal ($m_c(t)$) is performed by a coherent amplitude demodulation with a carrier which is recovered by a CO-STAS-loop from the amplitude modulated RDS signal.

7. Method according to claim 5, **characterized in that** the amplitude demodulation of the amplitude modulated RDS signal ($m_c(t)$) into a RDS baseband signal ($m_{cL}(t)$) is performed by a complex demodulation.

8. Method according to claim 7, **characterized in that** the complex carrier needed for the complex demodulation is output from a digital PLL-circuit (17)

for pilot carrier recovery.

9. Method according to claim 7 ~~or 8,~~ **characterized in that** the carrier of the RDS signal ($m_{rds}(t)$) is recovered with a COSTAS-loop locking to the RDS baseband signal ($m_{cL}(t)$).

10. Method according to ~~anyone of claims 1 to 9,~~ claim 1 **characterized in that** the intermediate signal ($m_a(t)$) is obtained on basis of a sampling rate decimated stereo-difference signal ($m_d(t)$).

11. Method according to ~~anyone of claims 1 to 10,~~ claim 1 **characterized by** a sampling rate decimation to obtain carriers for the respective demodulations.

12. Method according to ~~anyone of claims 1 to 11,~~ claim 1 **characterized by** a sampling rate decimation of the RDS baseband signal ($m_{cL}(t)$).

13. RDS demodulator, **characterized in that** it is adapted to operate according to the method defined in ~~anyone of claims 1 to 12.~~ claim 1